AMENDMENTS TO THE SPECIFICATION

First Paragraph of Page 9

C1

These disadvantages become even more significant when using the handheld biopsy device. For instance, the physician must operate the biopsy device and the ultrasound probe simultaneously making it particularly difficult to manually advance[[of]] the inner cutter. In addition, when an assistant is required to remove each sample from the open discharge port, use of the handheld device becomes even more awkward. Due to these disadvantages, many physicians have declined to use the handheld model.

Last Paragraph of Page 9, line 10 through page 10, line 3

C2

This is unfortunate because, some lesions that can signify the possible presence of cancer cannot be seen using the stereotactic unit. In these cases, the doctor must resort to either the handheld device or open surgical biopsy. Due to the difficulties associated with the handheld device, doctors often choose the open surgical biopsy, which is particularly unfortunate because a majority of the lesions that cannot be seen using the sterotactic unit turn out to be benign. This means that the patient has unnecessarily endured a significant amount of pain and discomfort; not to mention extended recovery time and disfiguring results. In addition, the patient has likely incurred a greater financial expense because the open surgical technique is more difficult, time consuming and costly, especially for those ~~patient~~ patients without health insurance.

Please insert the following paragraph on page 15 as the last paragraph describing Figure 11:

C3

--**FIG. 11** is a schematic drawing of an electric motor control system according to another embodiment of the invention.--

First Full Paragraph of Page 17

C4

The cutting element 11 is configured as a "tube-within-a-tube" cutting device. More specifically, the cutting element 11 includes an outer cannula 15 terminating in a tip 16. Preferably, the tip is a trocar tip that can be used to penetrate the patient's skin. Alternatively,

the tip 16 can simply operate as a closure for the open end of the cannula 15. In this instance, a separate introducer would be required.

First Full Paragraph of Page 19

C4.5

In a specific embodiment, both the outer cannula 15 and the inner cannula 17 are formed of a surgical grade metal. Most preferably, the two cannulae are formed of stainless steel. In the case of an MRI compatible device, the cannulae can be formed of Inconel™, Titanium or other materials with similar magnetic characteristics. Likewise, the trocar tip 16 is most preferably formed of stainless steel honed to a sharp tip. The trocar tip 16 can be suitably bounded to the outer cannula 15, such as by welding or the use of an appropriate adhesive.

Second Paragraph of Page 21, line 12 through Page 22, line 7

C5

Since the inner cannula 17 provides an avenue for aspiration of the biopsy sample, the invention further contemplates an aspiration tube 50 that mates with the tubular axle 43. Thus, the tissue aspiration path from the working end of the cutting element 11 is along the inner lumen 34 of the inner cannula 17, through the tubular axle 43 of the rotary motor 20, and through the aspiration tube 50 to a tissue collection location in the form of a collection trap 55. In order to maintain the vacuum or aspiration pressure within this aspiration path, the aspiration tube 50 must be fluidly sealed against the tubular axial 43. Thus, the motor housing 39 defines a mounting hub 51 into which the aspiration tube 50 is engaged. The position of the aspiration tube 50 is fixed by way of a setscrew 52 passing through the mounting hub 51. In contrast to the joint between the inner cannula 17 and the tubular axial 43, the joint between the aspiration tube 50 and the tubular axial 43 allows relative ~~rotational~~ rotation between the two components. The tubular axle 43, of course, rotates with the rotor 42. However, the aspiration tube 50 need not rotate for use with the biopsy apparatus of the present invention. The mounting hub 51 can include an arrangement of seal rings (not shown) at the joint between the aspiration tube 50 and the tubular axle 43 to further seal the aspiration system.

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First Full Paragraph of Page 28

C6

In a further aspect of the invention, the collection trap 55 is mounted to the handpiece 12 by way of a support housing 93. It should be understood that in certain embodiments, the handpiece 12 can be limited to the previously described components. In this instance, the collection trap 55 can be situated separate and apart from the handpiece, preferably close to the source of vacuum or aspiration pressure. In this case, the proximal end of the aspiration tube 50 would be connected to the collection trap 55 by a length of tubing. In the absence of the collection trap 55, the aspiration tube 50 would reciprocate away from and toward the proximal end of the cylinder 60, so that it is preferable that the handpiece includes a cover configured to [conceals]conceal the reciprocating end of the aspiration tube.

Page 30, Paragraph 3, line 23 through Page 31, line 22

C7

The handpiece 12 can include individual covers for closing the access opening 81 in the distal housing 70 and the access openings 95 in the support housing 93. Those covers can support tubing for engagement with the pilot ports 40 and 61. Alternatively and most preferably, a single cover 13 as depicted in FIG. 4, is provided for completely enclosing the entire handpiece. The distal end 71 of the housing 70 can define a number of engagement notches 115 equally spaced around the perimeter of the distal end. The handpiece cover 13 can then include a like number of equally distributed tangs 117 projecting inwardly from the inner surface ~~from the~~ 118. These tangs are adapted to snap into the engagement notches 115 to hold the cover [[113]]13 in position over the handpiece 12. The cover can be attached by sliding axially over the handpiece 12. The cover 13 can include fittings for fluid engagement with the two pilot ports 40 and 61. Alternatively, the cover can be formed with openings for insertion of engagement tubing to mate with the respective pilot ports to provide hydraulic fluid to the rotary motor 20 and the reciprocating motor 22. In an specific embodiment, the cover 13 extends from the distal end 71 of the distal housing 70 to the proximal end 97 of the support housing 93. The cover can thus terminate short of the bayonet mounting feature between the support housing and the collection trap 55. Although not shown in the figures, the proximal end 97 of the support housing 93 can be configured to include a similar array of engagement notches with a corresponding array of mating tangs formed at the proximal end of the cover 13.

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Page 38, Paragraph 2

Pressurized fluid along cylinder pressure line 161 is also fed to a pressure switch 165. The pressure switch has two positions providing flow paths 165a and 165b. In addition, an adjustable return spring 166 biases this switch to its normal position at which fluid from the pressure source 152 terminates within the valve. However, when pressurized fluid is provided through cylinder pressure line 161, the pressure switch 165 moves to its flow path 165b in which the fluid source 152 is hydraulically connected to the pressure input line 168. This pressure input line 168 feeds an oscillating hydraulic valve 170. It is this valve that principally operates to oscillate the reciprocating motor 22 by alternately pressurizing and releasing the two-position hydraulic valve 158. The pressure switch 165 is calibrated to sense an increase in pressure within the cylinder pressure line 161 or in the reciprocating motor cylinder 60 that occurs when the piston 66 has reached the end of its stroke. More specifically, the piston reaches the end of its stroke when the inner cannula 17 contacts the cutting board 31. At this point, the hydraulic pressure behind the piston increases, which increase is sensed by the pressure valve 165 to stroke the valve to the flow path 165b.

C8

Page 41, Paragraph 2

Thus far the portion of the hydraulic control system 150 that controls the operation of the reciprocating motor 22 has been described. The system 150 also controls the operation of the rotary motor 20. Again, in the most preferred embodiment, the motor 20 is an air motor. This air motor is controlled by another hydraulic valve 182. As show in FIG. 10, the initial position of the valve provides a flow path 182a in which the fluid source 152 is connected to blocked line 183. However, when the hydraulic valve 182 is pressurized, it moves to flow path in which the fluid source 152 is connected to the pilot port [[140]]40 of the air motor. In this position, pressurized fluid continuously drives the air motor 20, thereby rotating the inner cannula 17. It can be noted ~~parathentically~~ parenthetically that a muffler M can be provided on the air motor to reduce noise.

C9

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Page 43, Paragraph 2

As long as the foot pedal 175 is depressed and the valve 176 is in its flow path 176b, fluid pressure is continuously applied to the aspiration hydraulic valve [[195]]185 and the venturi element 190 generates a continuous vacuum or negative aspiration pressure. As with the operation of the rotary motor, this vacuum is not regulated in the most preferred embodiment. However, the vacuum pressure can be calibrated by a selection of an appropriate venturi component 190.

C10

Page 43, Paragraph 3, line 20 through Page 44, line 8

When the venturi component 190 is operating, the vacuum drawn on control line 193 operates on vacuum switch 194. A variable biasing spring 195 initially maintains the vacuum switch 194 at its flow path 194a. In this flow path, the vacuum input line 196 is not connected to any other line. However, at a predetermined vacuum in control line 193, the valve moves to flow path 194b. In this position, the vacuum input line 196 is connected to pressure line 192. In the preferred embodiment, the vacuum switch 194 operates in the form of a "go-nogo" switch – in other words, when the aspiration vacuum reaches a predetermined operating threshold, the vacuum switch is activated. When the vacuum switch [[184]]194 is initially activated, it remains activated as along as the foot pedal is depressed. Thus vacuum input line 196 is continuously connected to pressure line 192 as long as the foot pedal 175 is depressed.

C11

Page 47, Paragraph 2

The hydraulic control system 150 in the illustrated embodiment incorporates five controllable elements. First, the fluid pressure provided to activate the reciprocating motor 22 is controlled through the regulator 154. In addition, the fluid flow rate to the piston [[66]]63 is controlled via the adjustable control valve 162. The pressure at which the pressure switch 165 is activated is determined by an adjustable return spring 166. Likewise, the aspiration pressure vacuum at which the vacuum switch 194 is activated is controlled by an adjustable return spring 195. Finally the adjustable flow control valve 197 controls the fluid flow from the vacuum switch 194 to the oscillating hydraulic valve 170. Each of these adjustable elements controls the rate and duration of oscillation of the reciprocating motor 22.

C12

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Page 47, Paragraph 3, line 24 through Page 48, Paragraph 1, line 7

C13

In the preferred embodiment, the pressure switch 165 essentially operates as an "end of stroke" ~~indicators~~ indicator. In other words, when the inner cannula 17 reaches the end of its forward or cutting stroke, it contacts the cutting board 31. When it contacts the cutting board, the pressure in the cylinder pressure line 161 changes dramatically. It is this change that causes the pressure switch 165 to change states. This state change causes the oscillating valve 170 to shift valve 158 to terminate fluid pressure to the motor 22, causing it to stop its cutting stroke and commence its return stroke.

Page 49, Last Paragraph, line 24 through Page 50, Line 6

C14

In the alternative embodiment, the rotary motor 20 can consist of an electric motor, rather than a pneumatic motor. As depicted in FIG. 11, the pressure activation line 180 can be fed to an on-off pressure switch 198 that is governed by an adjustable bias spring 199. When the activation line 180 is pressurized the switch 198 establishes a connect between an electric reciprocating motor [[20]]22 and a battery pack 200. Preferably, the batter pack 200 is mounted within the handpiece 12, but can instead be wired to an external battery contained within the console.

Page 50, Last Paragraph, Line 21 through Page 51, Line 6

C15

The length of the tissue-receiving opening determines the length of biopsy sample extracted per each oscillation of the reciprocating motor 22. In one specific embodiment, the opening has a length of about 0.7", which means that a 0.7" long tissue sample can be extracted with each cutting cycle. In order to accommodate a large number of these biopsy tissue slugs, the collection trap can have a length of about 2.5" and a diameter of about .05". Of course, the interior volume of the collection trap can vary depending upon the size of each biopsy slug and the amount of material to be collected. In a specific embodiment, the filter disposed within the collection trap 55 is manufactured by Performance Systematix, Inc. of Callondoni, MI.